| Number: Number & Place Value | Number: Addition & Subtraction | Number: Multiplication & Division |
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| • read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit<br><br>• count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000<br><br>• interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero<br><br>• round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000<br><br>• solve number problems and practical problems that involve all of the above<br><br>• read Roman numerals to 1000 (M) and recognise years written in Roman numerals. | • add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)<br><br>• add and subtract numbers mentally with increasingly large numbers<br><br>• use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy<br><br>• solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. | • identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers<br><br>• know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers<br><br>• establish whether a number up to 100 is prime and recall prime numbers up to 19<br><br>• multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers<br><br>• multiply and divide numbers mentally drawing upon known facts<br><br>• divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context<br><br>• multiply and divide whole numbers and those involving decimals by 10, 100 and 1000<br><br>• recognise and use square numbers and cube numbers, and the notation for squared ($^2$) and cubed ($^3$)<br><br>• solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes |

| Number: Fractions | | solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign |
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| • compare and order fractions whose denominators are all multiples of the same number | | |
| • identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths | | • solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. |
| • recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number [for example, 2/5 + 4/5 = 6/5 = 1 1/5] | | *Geometry: Properties of Shapes* |
| • add and subtract fractions with the same denominator and denominators that are multiples of the same number | | • identify 3-D shapes, including cubes and other cuboids, from 2-D representations |
| • multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | | • use the properties of rectangles to deduce related facts and find missing lengths and angles |
| • read and write decimal numbers as fractions [for example, 0.71 = 71/100] | | • distinguish between regular and irregular polygons based on reasoning about equal sides and angles. |
| • recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | | |
| • round decimals with two decimal places to the nearest whole number and to one decimal place | | • know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles |
| • read, write, order and compare numbers with up to three decimal places | | • draw given angles, and measure them in degrees (°) |
| • solve problems involving number up to three decimal places | | • identify angles at a point and one whole turn (total 360°) |
| • recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal | | • identify angles at a point on a straight line and half a turn (total 180°) |
| • solve problems which require knowing percentage and decimal equivalents of 1/2, 1/4, 1/5, 2/5, 4/5, and those fractions with a denominator of a multiple of 10 or 25. | | • identify other multiples of 90° |
| *Measurement* | | |
| • convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) | | *Geometry: Position & Direction* |
| | | • identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed. |
| • understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints | | |

| | **Statistics** |
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| • measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres<br><br>• calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres ($cm^2$) and square metres ($m^2$) and estimate the area of irregular shapes<br><br>• estimate volume [for example, using 1 $cm^3$ blocks to build cuboids (including cubes)] and capacity [for example, using water]<br><br>• solve problems involving converting between units of time<br><br>• use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling. | • solve comparison, sum and difference problems using information presented in a line graph<br><br>• complete, read and interpret information in tables, including timetables. |